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EXAMINER
RUTTEN, JAMES D

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	09/972,076	JOHNSON ET AL.
	Examiner	Art Unit	
	JAMES RUTTEN	2192	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>21 December 2007</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>80-83</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>80-83</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

1.   This action is in response to Applicant's submission filed 12/21/07, responding to the

10/18/07 Office action which detailed the rejection of claims 1-47, 49-70, and 72-79. Claims 1-

79 have been canceled, and new claims 80-83 have been added. Claims 80-83 remain pending in

the application and have been fully considered by the examiner.

Response to Arguments

2.   In response to applicant's argument that the references fail to show certain features of

applicant's invention, it is noted that the features upon which applicant relies (i.e., data that is

"external to the system" - see top of page 7 filed 12/21/07) are not recited in the rejected claims.

Although the claims are interpreted in light of the specification, limitations from the specification

are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir.

1993). Prior art of record Courts et al. (USPN 6,085,220) discloses receiving data that is external

to the decision server (e.g., see *profile DB 38 & enterprise space 26* FIG.1 & associated text as

detailed in the rejection of claim 80, below). Claims 80-82 merely recite "receiving external

data," or similar. A reasonable broad interpretation of the plain language of the claims allows

Courts et al. to read on the claims.

3.   Applicant's further arguments with respect to claims 80-83 have been considered but are

moot in view of the new grounds of rejection.

Claim Rejections - 35 USC § 112

4.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5.   Claims 80 and 82 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 80 recites the limitation "said decision server" in line 15. A similar limitation is present in claim 82. There is insufficient antecedent basis for this limitation in the claims. In the interest of further examination, this limitation will be interpreted as "a decision server."

Claim Rejections - 35 USC § 103

6.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7.   Claims 80-82 are rejected under 35 U.S.C. 103(a) as being unpatentable over prior art of record U.S. Patent 6,085,220 to Courts et al. ("Courts") in view of prior art of record U.S. Patent 6,466,971 to Humpleman et al. ("Humpleman") in view of prior art of record U.S. Patent 6,157,940 to Marullo et al. ("Marullo").

In regard to claim 80, Courts discloses:

A method for automating real-time decisions (See col.1:45-49), *said method comprising:*

designing rules with a project designer; (e.g., see *business logic & business object 20* FIG.1 & associated text).

receiving approval of a user; See column 3 lines 8-10, e.g. "workbench 42 and component creator 44." Note that these components are part of an editing environment wherein a regular cycle of modification/approval occurs.

storing said rules in a storage device for future modification; See column 5 lines 37-56, e.g. "database."

automatically generating code with a code generator server (e.g., col.2:62-67; see *Independent Software Vendor ISV space 28* FIG.1 & associated text), *said code comprising:*

rule service software, (e.g., col.2:62-67 as cited above.)

...

transmitting said data from said Web server to < a > decision server; (e.g., see Abstract, see interaction layer 12 & HTTP FIG.1 & associated text, col.9:30-32; col.4:13-16).

receiving external data on said decision server; (e.g., see *profile DB 38 & enterprise space 26* FIG.1 & associated text)

...

automatically generating mark-up language data with rule service software residing on said decision server; and (e.g., col.4:13-16);

sending the results of said validity tests to said client system for analysis by said

user. (e.g., see Abstract, col.1:52-54).

Courts does not expressly disclose the following elements which are disclosed by

Humpleman:

said code comprising:

a mark-up language schema, (e.g., see *CALL.DTD & INTERFACE.DTD*

& Web Server Layer FIG.18 & associated text, see *Device A XML Interface 72*

FIG.19 & associated text).

a mark-up language parser and builder, and (e.g., see *XML Layer IN 70*

& XML Layer OUT 68 FIG.18 & associated text, see *XML parser 74* FIG.19 &

associated text)

a Web page;

transmitting said mark-up schema to a client system for collecting data and

insuring said data conforms to said mark-up schema; automatically reading said data

conforming to a mark-up language schema with said mark-up language parser and

builder, said mark-up language parser and builder residing on a Web server;

Humpleman discloses sending XML input data (e.g., see *commands/XML* FIG.14 &

associated text, see *XML-RPC Action* FIG.19) from a business end user/client system

(e.g., see *A* FIG. 14 & associated text, see *HN Device A: Controller Module* FIG.19 &

associated text) to a decision server (e.g., see *S* FIG.14 & associated text, see *HN Device*

B: Controller Module FIG.19 & associated text) via a web server (e.g., see *server 14*

FIG.14 & associated text, see *HN Device Web Server 86* FIG.19 & associated text), said

decision server processing the XML input data, generating XML-formatted response,

web pages and returning to the client via said web server (e.g., see *HTML or XML*

FIG.14, see *XML-RPC Response* FIG.19 & associated text). *Humpleman et al.* further

discloses generating an XML schema for providing to the client system for collecting

said input data and providing to Web server for use in error handling, or data validation

(e.g., see *CALL.DTD & INTERFACE.DTD & Web Server Layer* FIG.18 & associated

text, see *Device A XML Interface 72* FIG.19 & associated text) and generating an XML

parser (e.g., see *XML Layer IN 70 & XML Layer OUT 68* FIG.18 & associated text, see

XML parser 74 FIG.19 & associated text) for reading data conforming to said XML

schema. It would have been obvious to one of ordinary skill in the pertinent art at the

time the invention was made to modify Courts' teaching to include the teaching as set

forth by Humpleman to produce the expected result with reasonable success. And the

motivation for doing so would have been that the formatting of data into syntactically

correct XML document(s) depends upon adhering to a predefined definition language

describing the structure and set of constraints (i.e., XML schema) on which an XML

documents shall be constructed from said data. Furthermore, XML parsers enable the

processing and extracting of data in textual representation within XML tags and

transforming them into specific-typed objects/data structure (e.g., C, C++, or Java

objects) which can be retrieved for use by servers and software applications.

Conventional XML parsers check XML documents being parsed for conformance to

general XML rules. Most recent XML parsers, at the time the invention was made, are

implemented with integrated support for XML schemas to further enable data validation.

Courts also does not expressly disclose: *testing the validity of rules with said*

decision server by generating statistics on how often said rules are used;   However,

Marullo discloses: stress testing said rules/models (e.g., col.3:38-43, col.4:40-47, col.6:1-

6 & 51-62, see *webStrain 68* FIG.2 & associated text, see *352* FIG.18 & associated text,

see FIG.16A-16C & associated text) by inputting a significantly large number of

transactions into a monitor and Web server (e.g., see *web server 10* FIG.1 & associated

text, col.1:43-47, see *genautoAPI 58* FIG.2 & associated text, see *106* FIG.15 &

associated text); said stress testing tracking and storing in repository (e.g., see *user*

specified files 40 FIG.3 & associated text) statistics on specific rules/models by counting

the number of times predetermined rules/models are used during said stress testing (e.g.,

see *116, 118* FIG.9A & associated text, col.2:65-col.3:6,). It would have been obvious to

one of ordinary skill in the pertinent art at the time the invention was made to incorporate

the teaching of Marullo into that of Courts to include the steps of stress testing

rules/models as disclosed by Marullo which would produce the expected result with

reasonable success. And the motivation for doing so would have been that the

automation of stress testing business/web-server applications (i.e., project design),

verification/validation of rules/models, and report generation ensures that all possibilities

of data input/output and all permutations and combinations of transactions/APIs and

business logic/rules associated therewith have been exhaustively traversed, and tested for

correctness and reported in a consistent, and efficient manner [in comparison to manual testing/traversing of links in web applications which yields unreliable test results not mirroring what is to be expected in the actual environment in which the web server applications would be used].

In regard to claim 81, Courts discloses: *An apparatus for automating real-time decisions* (e.g., see Abstract, *enterprise interaction hub 10* FIG.1 & associated text). All further limitations have been addressed in the above rejection of claim 80.

In regard to claim 82, Courts discloses: *At least one computer readable medium containing a computer program product for developing rules using a decision engine* See at least Figs. 3A and 3B and column 7 lines 25-37, e.g. "memory." All further limitations have been addressed in the above rejection of claim 1.

8.   Claim 83 is rejected under 35 U.S.C. 103(a) as being unpatentable over prior art of record U.S. Patent Application Publication No. US 2002/0138449 by Kendall et al. ("Kendall") in view of prior art of record U.S. Patent 6,687,873 to Ballantyne et al. ("Ballantyne") in view of Marullo.

In regard to claim 83, Kendall discloses:

A method for developing rules using a decision engine (e.g. see Fig. 10 and paragraph [0110] "To build a rule...", *said method comprising:*

...

defining projects with workflow functional components, (e.g., see FIG.7,8 &

associated text) *said workflow functional components comprising:*

expression sequences, (e.g., see *policy number, address, city, caller name*

FIG.10 & associated text)

segmentation trees, and (e.g., see *Driver is named on policy, police have*

been notified, injuries as a result of accident FIG.5 & associated text)

workflow lists; (e.g., see FIG.5,9,10 & associated text)

creating project workflow with said segmentation trees; identifying a set of steps

that are processed during runtime execution with said workflow lists; (e.g., see *outcome*

FIG.6 & associated text)

designing rules; generating rules, models, and strategies with graphical user

interfaces; (e.g., see Abstract, see FIG.5,6,9 & associated text)

assigning values to local fields and modifying local field values with said

expression sequences; (e.g., see Fig. 10 & associated text. Also, see paragraph [0081] -

The expression sequences are used for assigning field values in the associated rules.)

...

producing a predictive score at runtime for a given transaction with said models;

(e.g. see Fig. 10 and paragraph [0110] "risk score").

Kendall discloses a method and apparatus (e.g., see FIG.1 & associated text) for

providing a designing software having graphical user interfaces (GUIs) for generating

data, variables, business rules/models, trees, and actions required in a project design (i.e.,

a visual designer component for facilitating said configuring said decision engine) (e.g.,

see Abstract, see FIG.5,6,9 & associated text). Kendall further discloses generating for

the project design a workflow functional component (e.g., see FIG.7,8 & associated text)

having expression sequences (e.g., see *policy number, address, city, caller name* FIG.10

& associated text), segmentation trees (e.g., see *Driver is named on policy, police have*

been notified, injuries as a result of accident FIG.5 & associated text), workflow lists

(e.g., see FIG.5,9,10 & associated text) for means for placing said sequences, trees, and

lists in a hierarchical order (e.g., (e.g., see FIG.5,9,10 & associated text) wherein a root

workflow list (e.g., see *lost type is accident* FIG.5 & associated text) providing a starting

point for processing workflow at runtime, and any of said workflow lists is used as a

result list at an exit point of segmentation tree of said segmentation trees (e.g., see

outcome FIG.6 & associated text), and wherein end result nodes of said segmentation tree

points to said workflow list (e.g., see FIG.5,9,10 & associated text).

        Kendall does not expressly disclose the following elements disclosed by

Ballantyne:

        converting model files into data with a model editor component; (e.g., see

Ballantyne *modeling engine 28, mapping engine 26, modeling/mapping GUI 30* FIG.1 &

associated text; also see Abstract, see *legacy program applications 16* FIG.1 & associated

text, see *36* FIG.2 & associated text)

        organizing said data according to hierarchical structures; (e.g., see Ballantyne

context table 22 FIG.1 & associated text, see *44* FIG.2 & associated text)

importing said data into a designer component; (e.g., see Ballantyne *legacy*

system 12, writer engine 20 FIG.1 & associated text).

It would have been obvious to one of ordinary skill in the pertinent art at the time

the invention was made to incorporate the teaching of Ballantyne into that of Kendall to

obtain a model editor component for automatically converting rules/models files in to

XML format which are then imported to the designer component with reasonable success

in producing the expected results. And the motivation for doing so would have been that

automatic conversion of business rules/models into XML format eliminates the need to

alter existing programming logic or business rules within legacy applications and further

facilitates easy data transmission over the Internet, and between different applications, as

well as direct display and manipulation of data via browser technology.

Kendall does not expressly disclose the following elements disclosed by Marullo:

testing said rules by tracking statistics on which rules, models, and strategies

were used and how many times; However, Marullo discloses: stress testing said

rules/models (e.g., col.3:38-43, col.4:40-47, col.6:1-6 & 51-62, see *webStrain 68* FIG.2 &

associated text, see *352* FIG.18 & associated text, see FIG.16A-16C & associated text) by

inputting a significantly large number of transactions into a monitor and Web server (e.g.,

see *web server 10* FIG.1 & associated text, col.1:43-47, see *genautoAPI 58* FIG.2 &

associated text, see *106* FIG.15 & associated text); said stress testing tracking and storing

in repository (e.g., see *user specified files 40* FIG.3 & associated text) statistics on

specific rules/models by counting the number of times predetermined rules/models are

used during said stress testing (e.g., see *116, 118* FIG.9A & associated text, col.2:65-col.3:6,). Marullo further discloses modification of rules, models, and strategies. (e.g., col.3:38-43, col.4:40-47, col.6:1-6 & 51-62, see *webStrain 68* FIG.2 & associated text, col.1:5-10, col.2:14-15 & 18-31, col.3:54-55 & 60-65);

It would have been obvious to one of ordinary skill in the pertinent art at the time the invention was made to incorporate the teaching of Marullo into that of Kendall to include the steps of stress testing rules/models as disclosed by Marullo which would produce the expected result with reasonable success. And the motivation for doing so would have been that the automation of stress testing business/web-server applications (i.e., project design), verification/validation of rules/models, and report generation ensures that all possibilities of data input/output and all permutations and combinations of transactions/APIs and business logic/rules associated therewith have been exhaustively traversed, and tested for correctness and reported in a consistent, and efficient manner [in comparison to manual testing/traversing of links in web applications which yields unreliable test results not mirroring what is to be expected in the actual environment in which the web server applications would be used].

Conclusion

9.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES RUTTEN whose telephone number is (571)272-3703. The examiner can normally be reached on M-F 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Tuan Q. Dam can be reached on (571)272-3695. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J. Derek Rutten/
Patent Examiner, Art Unit 2192